

Serial No.

Docket No.: RD-25,993-7

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



In re application of: Barry Lee-Mean Yang et al.  
Serial No.:  
Filed:  
Group Art Unit:

For: MULTILAYER ARTICLE AND METHOD OF MAKING BY ARC PLASMA DEPOSITION

INFORMATION DISCLOSURE STATEMENT

Honorable Assistant Commissioner of Patents  
Washington, DC 20231

SIR:

This Information Disclosure Statement is being filed under 37 C.F.R. §1.56 for a Continuation Application, which relies on the filing date of its parent application, such parent application being identified as:

U.S. Patent Application Serial No: 09/271,654

Examiner: M. Padgett

Filed: March 17, 1999

Allowed Date: 11/7/01

Inventor(s): Barry Lee-Mean Yang et al.

Issue Batch No. O58

Title: MULTILAYER ARTICLE AND METHOD OF MAKING BY ARC PLASMA DEPOSITION

Enclosed are copies of forms PTO-1449 and PTO-892 listing all "prior art" cited and submitted in the parent application. Pursuant to 37 C.F.R. §1.98(d), no actual copies of the documents listed are being furnished to the PTO with this Information Disclosure Statement.

Respectfully submitted,

Robert P. Santandrea  
Attorney

DATE: December 4, 2001

REGISTRATION NO: 45,072  
TELEPHONE: (518) 387-6304

General Electric Company  
CRD Patent Docket Room 4A59  
PO Box 8, Bldg. K-1 Salamone  
Schenectady, New York 12301

INFORMATION DISCLOSURE STATEMENT BY APPLICANT--

LIST OF ITEMS

(Use several sheets if necessary)

Applicant

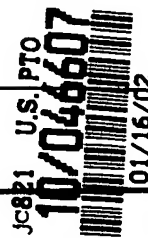
Barry Lee-Mean Yang et al.

Filing Date

03/17/99

Group

2761



U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA 3 1 6 1 6 1 5	12/15/64	Goldberg			
	AB 3 2 2 0 9 7 3	11/30/65	Goldberg			
	AC 3 3 1 2 6 5 9	04/04/67	Kurkky et al.			
	AD 3 3 1 2 6 6 0	04/04/67	Kurkky et al.			
	AE 3 3 1 3 7 7 7	04/11/67	Elam et al.			
	AF 3 5 7 6 6 5 6	04/27/71	Webb et al.			
	AG 3 6 6 6 6 1 4	06/24/69	Snedeker et al.			
	AH 3 9 8 9 6 7 2	11/02/76	Vestergaard			
	AI 4 1 9 4 0 3 8	03/18/80	Baker et al.			
	AJ 4 2 0 0 6 8 1	04/29/80	Hall et al.			
	AK 4 2 1 0 6 9 9	07/01/80	Schroeter et al.			

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	No
	AL 9 2 1 3 5 1 7	02/04/92	PCT				
	AM 8 9 0 1 9 5 7	08/22/88	PCT				
	AN 9 7 1 3 8 0 2	10/11/96	PCT				
	AO						
	AP						

OTHER INFORMATION (Including Author, Title, Date, Pertinent pages. Etc.)

AR	S. Anders et al., Formation of Metal Oxides by Cathodic Arc Deposition, 76-77 Surface and Coatings Technology 167-73 (1995).
AS	H. Bolt et al., Gradient Metal - a-C:H Coatings Deposited From Dense Plasma by a Combined PVD/CVD Process, 98 Surface and Coatings Technology 1518-1523 (1998).
AT	D.E. Brodie et al., Characterization of ZnO for the Fabrication of Conductor-Insulator-Semiconductor (CIS) Solar Cells, Conf. Proc. for IEEE 14th Photovoltaic Spec. Conf. 468-471 (Jan 7-10, 1980).

EXAMINER

DATE CONSIDERED

INFORMATION DISCLOSURE STATEMENT BY APPLICANT--  
LIST OF ITEMS

(Use several sheets if necessary)

Applicant

Barry Lee-Mean Yang et al.

Filing Date

03/17/99

Group

2761

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	BA 4 2 2 4 3 7 8	09/23/80	Schroeter et al.			
	BB 4 2 4 2 3 8 1	12/30/80	Goossens et al.			
	BC 4 4 5 4 2 7 5	06/12/84	Rosenquist			
	BD 4 8 4 2 9 4 1	06/27/89	Devins et al.			
	BE 4 8 7 1 5 8 0	10/03/89	Schram et al.			
	BF 4 9 2 7 7 0 4	05/22/90	Reed et al.			
	BG 4 9 4 8 4 8 5	08/14/90	Wallsten et al.			
	BH 5 0 0 8 1 4 8	04/16/91	Thurm et al.			
	BI 5 0 5 1 3 0 8	09/24/91	Reed et al.			
	BJ 5 1 5 6 8 8 2	10/20/92	Rzad et al.			
	BK 5 2 9 8 5 8 7	03/29/94	Hu et al.			

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	No
	BL						
	BM						
	BN						
	BO						
	BP						

OTHER INFORMATION (Including Author, Title, Date, Pertinent pages. Etc.)

BR	
BS	
BT	

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT--  
LIST OF ITEMS

(Use several sheets if necessary)

Applicant

Barry Lee-Mean Yang et al.

Filing Date

03/17/99

Group

2761

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	CA 5 3 2 0 8 7 5	06/14/94	Hu et al.			
	CB 5 4 3 3 7 8 6	07/18/95	Hu et al.			
	CC 5 4 6 3 0 1 3	10/31/95	Tokuda et al.			
	CD 5 4 8 0 7 2 2	01/02/96	Tomonaga et al.			
	CE 5 4 9 4 7 1 2	02/27/96	Hu et al.			
	CF 5 5 1 0 4 4 8	04/23/96	Fontane et al.			
	CG 5 6 1 4 2 4 8	03/25/97	Schiller et al.			
	CH 5 6 3 5 0 8 7	06/03/97	Schiller et al.			
	CI 5 7 1 8 9 6 7	02/17/98	Hu et al.			
	CJ					
	CK					

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	No
	CL						
	CM						
	CN						
	CO						
	CP						

OTHER INFORMATION (Including Author, Title, Date, Pertinent pages. Etc.)

CR	
CS	
CT	

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

RD-25,993

09/271,654

Applicant

Barry Lee-Mean Yang, et al.

Filing Date

03/17/99

Group

2761

INFORMATION DISCLOSURE STATEMENT BY APPLICANT--

LIST OF ITEMS

(Use several sheets if necessary)

OTHER INFORMATION (Including Author, Title, Date, Pertinent pages. Etc.)

AU

D.A. Gerdeman and N.L. Hecht, Arc Plasma Technology in Materials Science 1-17 (1972).

AV

S. Jager et al., Comparison of Transparent Conductive Oxide Thin Films Prepared by A.C. and D.C. Reactive Magnetron Sputtering, 98 Surface and Coatings Technology 1304-1314 (1998).

AW

Jianhua Hu and Roy G. Gordon, Deposition of Boron Doped Zinc Oxide Films and Their Electrical and Optical Properties, 139 J. Electrochem. Soc. 2014-2022 (1992).

AX

Z.-C. Jin et al., Optical Properties of Sputter-Deposited ZnO:Al Thin Films, 64 J. Appl. Phys. 5117-5131 (1988).

AY

R.A. MacGill et al., Cathodic Arc Deposition of Copper Oxide Thin Films, 78 Surface and Coatings Technology 168-72 (1996).

AZ

S. Major et al., Electrical and Optical Transport in Undoped and Indium-doped Zinc Oxide Films, 1 J. Mater. Res. 300-310 (1986).

BU

S. Major et al., Highly Transparent and Conducting Indium-Doped Zinc Oxide Films by Spray Pyrolysis, 108 Thin Solid Films 333-340 (1983).

BV

S. Maniv et al., Transparent Conducting Zinc Oxide and Indium-Tin Oxide Films Prepared by Modified Reactive Planar Magnetron Sputtering, A1 J. Vac. Sci. Tech. 1370-1375 (1983)

BW

Tadatsugu Minami et al., Group III Impurity Doped Zinc Oxide Thin Films Prepared by RF Magnetron Sputtering, 24 Japanese J. of Appl. Phys. L781-L784, (1985)

BX

Tadatsugu Minami et al., Highly Conductive and Transparent Silicon Doped Zinc Oxide Thin Films Prepared by RF Magnetron Sputtering, 25 Japanese J. of Appl. Phys. L776-L779, (1986).

BY

M. Miyazaki and E. Ando, Durability Improvement of Ag-Based Low-Emissivity Coatings, 178 J. Non-Crystalline Solids 245-249 (1994).

BZ

C.X. Qiu and I. Shih, Tin- and Indium-Doped Zinc Oxide Films Prepared by RF Magnetron Sputtering, 13 Solar Energy Materials 75-84 (1986)

EXAMINER

DATE CONSIDERED

RD-25,993

09/271,654

Applicant

Barry Lee-Mean Yang, et al.

Filing Date

03/17/99

Group

2761

INFORMATION DISCLOSURE STATEMENT BY APPLICANT--

LIST OF ITEMS

(Use several sheets if necessary)

OTHER INFORMATION (Including Author, Title, Date, Pertinent pages. Etc.)

CU

D. Raviendra and J.K. Sharma, Electroless Deposition of Cadmium Stannate, Zinc Oxide, and Aluminum-Doped Zinc Oxide Films, 58 J. Appl. Phys. 838-844 (1985).

CV

R.E.I. Schropp et al., Transparent and Conductive Thin Films of ZnO for Photovoltaic Applications Prepared by RF Magnetron Sputtering, 1 Conf. Rec. of 20th IEEE Photovoltaic Spec. Conf. 273-276 (Sept. 26, 1988).

CW

B.E. Semelius et al., Band-Gap Tailoring of ZnO by Means of Heavy Al Doping, 37 Physical Review B of Am. Phys. Soc., 10244-10248 (1998).

CX

I. Shih and C.X. Qiu, Indium-Doped Zinc Oxide Thin Films Prepared by RF Magnetron Sputtering, 58 J. Appl. Phys. 2400-2401 (1985).

CY

S. Sreedhara Reddy et al., Optical Properties of Spray Deposited ZnO Films, 77 Solid State Communications 899-901 (1991).

CZ

K.J. Saunders, Organic Polymer Chemistry 388-411 (2d ed. 1988)

DU

DV

DW

DX

DY

DZ

EXAMINER

DATE CONSIDERED